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APPLIED MATERIALS, INC. 2881 SCOTT BLVD. M/S 2061 SANTA CLARA, CA 95050			JARRETT, SCOTT L	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,667

Applicant(s)

YUAN ET AL.

Examiner

Scott L. Jarrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/30/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This **Final** Office Action is responsive to Applicant's amendment filed August 4, 2005. Applicant's amendment amended the specification and amended claims 1-50. Currently claims 1-50 are pending.

Response to Amendment

2. Applicant's amendment filed on August 4, 2005 with respect to amended claims 1-50 necessitated new ground(s) of rejection.
3. The objection to the specification in the First Office Action is withdrawn in response to the Applicant's amendment to the title.

Response to Arguments

4. Applicant's arguments with respect to claims 1-50 have been considered but are moot in view of the new ground(s) of rejection.

In Applicants remarks file August 4, 2005 applicant argues that:

- BizTalk Server 2000 Enterprise Edition fails to be prior art under USC 102 (a) as the copyright dates in BizTalk Server 2000 document do not establish that the product was publicly used or its features publicly known in this country prior to the filing date of the instant application (Remarks: Pages 17-18); and
- the prior art of record fails to teach or suggest:

- a workflow system configured to execute a plurality of manufacturing tasks as now claimed (Remarks: Page 18); or
- performing a retry caused by a transient error as now claimed (Remarks: Page 18).

Further applicant requested support for the officially noticed facts in the first office action.

Regarding Applicant's assertion that Microsoft's BizTalk Server 2000 fails to be prior art under USC 102 (a) examiner respectfully disagrees. As recited in the first office action USC 102 (a) reads as follows:

A person shall be entitled to a patent unless –

(a) the invention was **known or used** by others in this country, or patented or **described in a printed publication in this or a foreign country**, before the invention thereof by the applicant for a patent.

The statute clearly states that the a person is entitled to a patent unless the invention was *known or used by others* in this country **or** printed in a *publication* in this or a foreign country. Microsoft's BizTalk Server 2000 family of products (Standard, Enterprise Editions) was clearly known by others and described in several printed publication in this country as evidenced by the references cited in the first office action and at least the following:

- Microsoft BizTalk Server 2000- Enterprise Edition Product Documentation (1999-2000) documents in a printed publication the knowledge and use of BizTalk Server 2000 by another as early as January 1, 1999 and no later than December 31, 2000.

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- Global retailer streamlines distribution of POS data using the BizTalk Framework and BizTalk Server 2000 (April 2000), teaches the use of BizTalk Server to build an business-to-business ecommerce system (event-based supply chain).

- Abjanic, U.S. Patent No. 6,732,175 (with an effective filing date of April 13, 2000), teaches a system and method for routing/switching XML messages wherein the system utilizes Microsoft BizTalk Server 2000 (Figure 5).

- Latting, Michael, BizTalk Server Preview Ships (April 2000), teaches the public availability of BizTalk Server 2000.

- Skonnard, Aaron, Microsoft BizTalk Server 2000 (May 2000) teaches, via a printed publication, the use of Microsoft's BizTalk Server 2000 by the author to build a trading partner integration system. Skonnard further teaches a plurality of Microsoft's BizTalk Server 2000's capabilities including but not limited to workflow management (pipelines; Page 3) and fault tolerant workflow processing through the utilization of transactional management (context) and retry queues (Pages 5, 7).

- BizTalk Orchestration White Paper (June 2000) teaches the utilization of BizTalk Server 2000 for managing workflows wherein the workflows comprise dynamic as well as long-running processes/transactions (Pages 4, 6, 8-9). The white paper further teaches BizTalk Server 2000's ability to provide fault-tolerant workflows by providing a "transactional context" around business processes (Page 9).

- Microsoft.com – BizTalk Initiative (August 2000), teaches the public availability of Microsoft's BizTalk Server 2000 ("Microsoft BizTalk Server 2000 Enterprise Beta Available – Download the Beta Today", Page 3, Bullet 1; Pages 4-5, 15) wherein the

BizTalk Server 2000 system it utilized for a plurality of business processes including but not limited to supply chain management, MRO, workflow/process and the like (pages 6-7, 9-10, 14).

- Microsoft BizTalk Server 2000 Readme (August 2000) describes in a printed publication a plurality of features of the BizTalk Server 2000 system.

- Angus, Jeff, BizTalk Server Makes EAI delivery easier (October 2000), teaches the utilization of Microsoft's BizTalk Server 2000 for supply chain and other business process/workflow automation systems and methods (Page 1). Angus further teaches his own personal examination/review of BizTalk Server 2000.

- Sliwa, Carol, Microsoft's BizTalk Server finally hits the market (December 2000) teaches the public availability and use of BizTalk Server 2000 ("Some companies have been so eager to get their hands on the product that they have been using beta versions.", Paragraph 1; "developers wrote 5,000 lines of code to build an enrollment process for one insurance company.", Paragraph 3).

- Brown, David, U.S. Patent Publication No. 2002/0156872 (with an effective filing date of January 8, 2001), teaches a system and method for transferring service requests wherein the system utilizes Microsoft BizTalk Server 2000.

Regarding Applicant's assertion that the prior art of record fails to teach or suggest a workflow system configured to execute a plurality of manufacturing tasks or retry to execute one of a plurality of manufacturing tasks when one of the tasks fails due to a transient error as now claimed examiner respectfully disagrees.

BizTalk Server 2000 teaches a workflow system and method for managing a plurality of tasks (activities, events, etc.) in any of a plurality of business processes including but not limited to processes associated with the manufacture of a product (reference A: Pages 1, 2A, 2-4; Tutorial, Pages 25-27; Module 1, Pages 28-38; Figures 3, 5-6, 25-26 and 33). Further the business processes/workflows managed by the workflow system merely represent an intended field of use such as "manufacturing."

BizTalk Server 2000 teaches that the workflow system and method utilizes well-known transaction management techniques (approaches, methods, etc.; Microsoft Transaction Server) and further enables the workflow to recover from any error (transient, temporary, intermittent, hard, soft, etc.) by employing such techniques as retrying a transaction/service request, for a pre-determined number of times (retry count, on failure page, retry queue, error handling), when one of the plurality of tasks fails, for any reason, to be executed (reference C: Page 6; Figure 3, Page 7 and as shown in Figure 4 below; reference A: Pages 6, 9-13).

Rangachari et al. teach a workflow system for the automation of the microelectronic (semiconductor) manufacturing process wherein a plurality of manufacturing equipment in a fab (semiconductor manufacturing plant; Column 1, Lines 10-20; Column 4, Lines 36-66; Column 5, Lines 49-64; Column 9, Lines 12-32; Column 10, Lines 44-68; Column 12, Lines 47-68; Figure 1, Elements 19, 100, 102).

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In response to applicant's request for support of the officially noticed facts cited in the first office action the following references are provided. Specifically it has been established that it is old and well known in the art:

- to free resources associated with a process (application, system, user, object) after that process is no longer using or expected to use the resource in order to optimize/improve the performance of systems and limit resource conflicts (Stallings: Pages 265-281; Orfali et al.: Pages 319-336);

- to utilize a callee's return address or other returned information by the caller (procedure calls, object invocation, etc) is optional (arbitrary, not required; Dietel: Pages 60, 248, 254, 388);

- to etch a lot of wafers as part of the manufacturing of semiconductors (Information Disclosure Statement filed August 11, 2004; International Business Machines, EP 0932195).

Information Disclosure Statement

5. The information disclosure statements filed September 30, 2005 (re-submitted: 10/3/2001, 7/31/2002, 9/19/2002, 12/31/2002, 4/25/2003, 7/3/2003, 10/9/2003, 12/18/2003, 3/29/2004, 8/11/2004, 10/8/2004) contains a large number of references submitted for consideration that appear to be cumulative and are consistent with progress in the art of semiconductor manufacturing. In view of the number of references in this application, the Applicant is requested to identify any specific references, features, sections or figures in the references cited which are believed to have particular significance in the prosecution of the instant application, i.e. related to workflow management, or which is considered material to the patentability of the pending claims, for further consideration by the examiner.

6. Regarding the re-submitted information disclosure statements filed September 30, 2005 (10/3/2001, 7/31/2002, 9/19/2002, 12/31/2002, 4/25/2003, 7/3/2003, 10/9/2003, 12/18/2003, 3/29/2004, 8/11/2004, 10/8/2004) the examiner has reviewed and considered all of the cited references and has determined that most of the references appear to be commensurate with the state of the art of semiconductor manufacturing and are not necessarily specific to determining the patentability of the claimed invention. Examiner has initialed the references that are considered to be material to the patentability of the claimed invention. If the applicant feels that one of the lined through references is material to the patentability of the instant application and should be cited on any possible printed patent document, it is requested that the document be pointed

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out in response to this office action including the identification of any specific features, sections or figures relevant to the determination of patentability.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-16, 18-28 and 30-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Microsoft's BizTalk Server 2000 (BTS; a.k.a. BizTalk Server, BizTalk Server Beta/Preview/Enterprise/Standard) as evidenced by:

I. Microsoft BizTalk Server 2000- Enterprise Edition Product Documentation (1999-2000), herein after reference A;

II. Anderson, Tim, Head to Head: Talking XML – BizTalk Server 2000 (2001), herein after reference B;

III. BizTalk Server 2000 An Overview (2001), herein after reference C.

Regarding Claims 1-3, 7, 9, 10-16, 18, 22-24, 26, 27, 30 and 34 the workflow system as claimed is merely *configured* to perform/execute a plurality of actions/activities however the system does not actually perform the actions/activities. For the purposes of examination examiner assumes the applicant will amend the claims

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to recite that the workflow system actually performs/executes/processes the plurality of action/activities.

For example, Claim 1 recites "...the software component configured to execute a plurality of manufacturing tasks..." however the workflow system does not actually execute the plurality of manufacturing tasks.

Claim 3, for example, recites "...configured to process at least one long running service..." however the workflow system as claimed does not actually process at least one long running service.

Regarding Claim 1 Microsoft BizTalk Server 2000, herein after referenced as BTS, teaches a workflow management system for modeling, building, scheduling and executing dynamic business processes (reference A: Page 1, Paragraph 1; reference B: Pages 1-3). BTS further teaches that the system utilizes (is built upon) a plurality of existing Microsoft technologies including but not limited to: Microsoft Transaction Server (MTS), SQL Server, Microsoft Window's NT (NT), Microsoft Internet Information Server (IIS), and Microsoft Visio and is part of the Microsoft .NET Enterprise Framework (reference A: Page 1, Paragraph 1; BizTalk 2000 An Overview, Pages 1-2; Figure 1 and as shown in Figure 1 below).

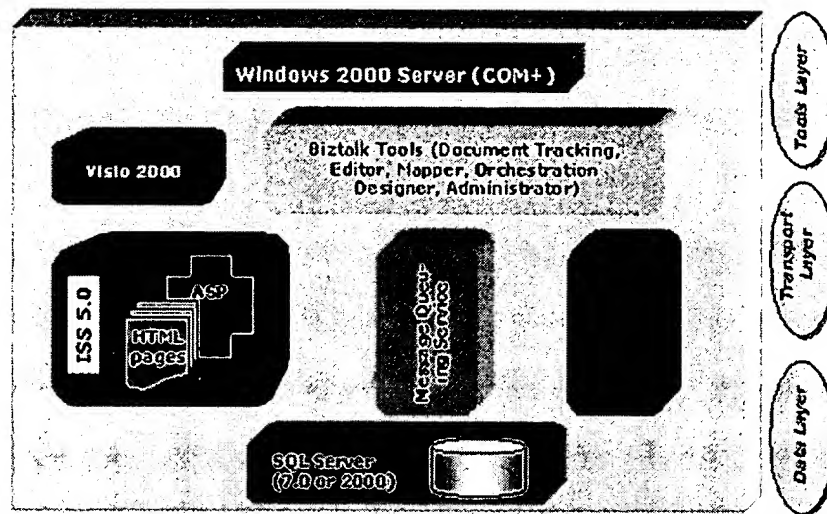


Figure 1: BizTalk Server 2000 Software Architecture (BizTalk 2000 An Overview, Figure 1)

BTS teaches that the workflow system comprises:

- BizTalk Orchestration services for business process automation and further comprising (reference A: Pages 2-4; Tutorial; Pages 25-27; Module 1, Pages 28-38; Figure 33, Page 33 and as shown below in Figure 3; reference B:, Figure 1, Page 1 and as shown below in Figure 2):

- BizTalk Orchestration Engine for executing workflow scripts;
- BizTalk Orchestration Designer for visual modeling business processes;
- an extensible Markup Language (XML) based scheduling language (XLANG) and XLANG schedules (workflow scripts);

- BizTalk Messaging for connectivity between systems (application; reference A: Pages 2-4; Tutorial; Pages 23-27 and 50-60);

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- BizTalk Mapper for creating, editing and managing maps (mapping data sources and records, reference A: Tutorial Module 2, Pages 45-49); and
- BizTalk Editor for creating, editing and managing specifications (reference A: Tutorial Module 2, Pages 39-44).

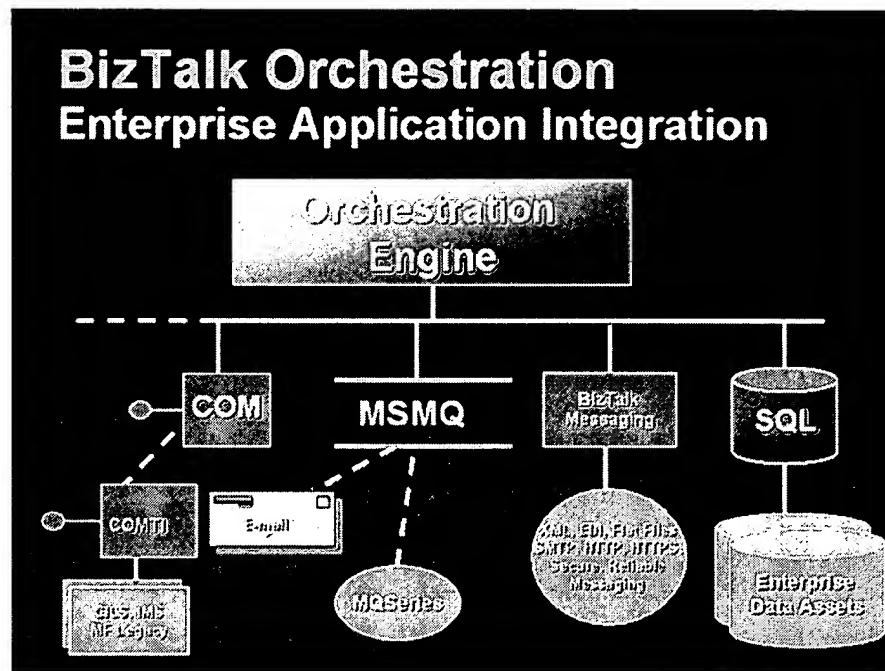


Figure 2: BizTalk Orchestration (reference B: Figure 1, Page 1)

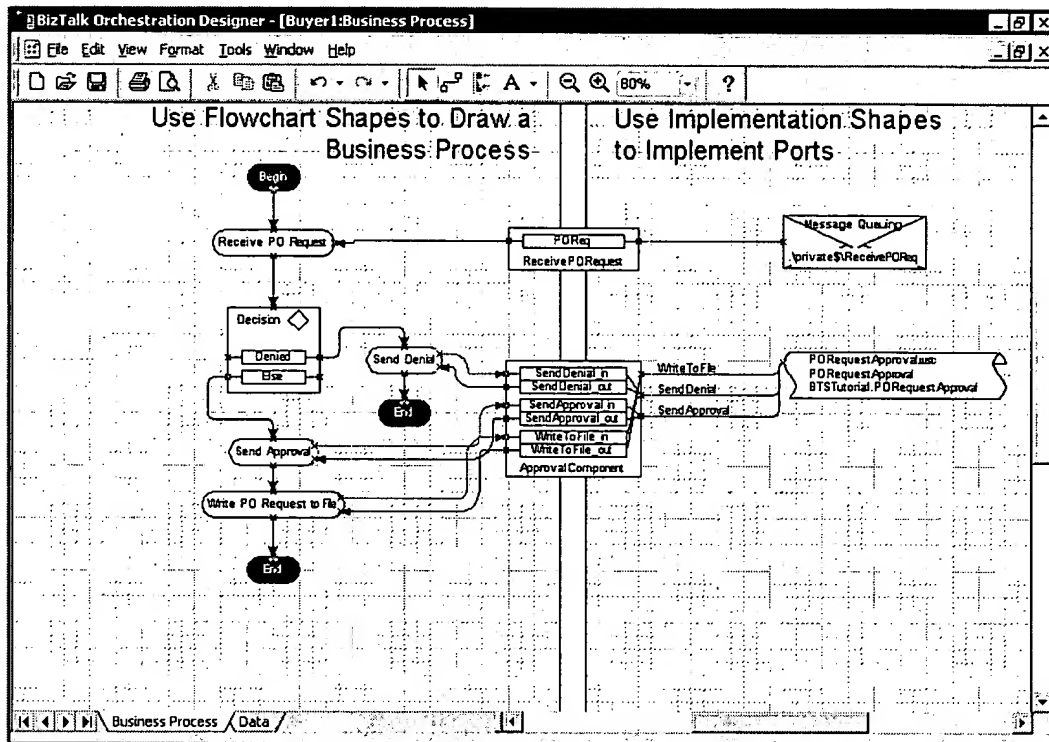


Figure 3: BizTalk Orchestration Designer (reference A)

More specifically BTS teaches that the workflow system comprises:

- executing a plurality of tasks (events, activities, processes, sub-processes) to be performed automatically (reference A: Pages 1, 2A, 5; Tutorial Module 1, Pages 28-38; Figure 33, Page 33 and as shown above in Figure 3; Figures 25 and 26, Pages 25-26 and as shown below in Figures 5 and 6); and
- retrying, for a pre-determined number of times (retry count, on failure page, retry queue, error handling) to execute one of the plurality of tasks when one of the plurality of tasks fails to be executed (reference C: Page 6; Figure 3, Page 7 and as shown in Figure 4 below; reference A: Pages 6, 9-13).

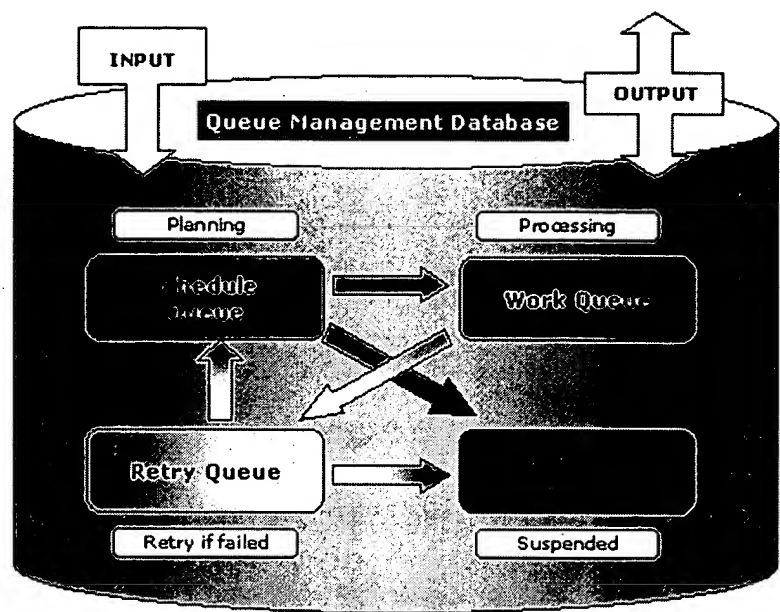


Figure 4: Message queues managed by BizTalk Server (BizTalk 2000 An Overview, Figure 3)

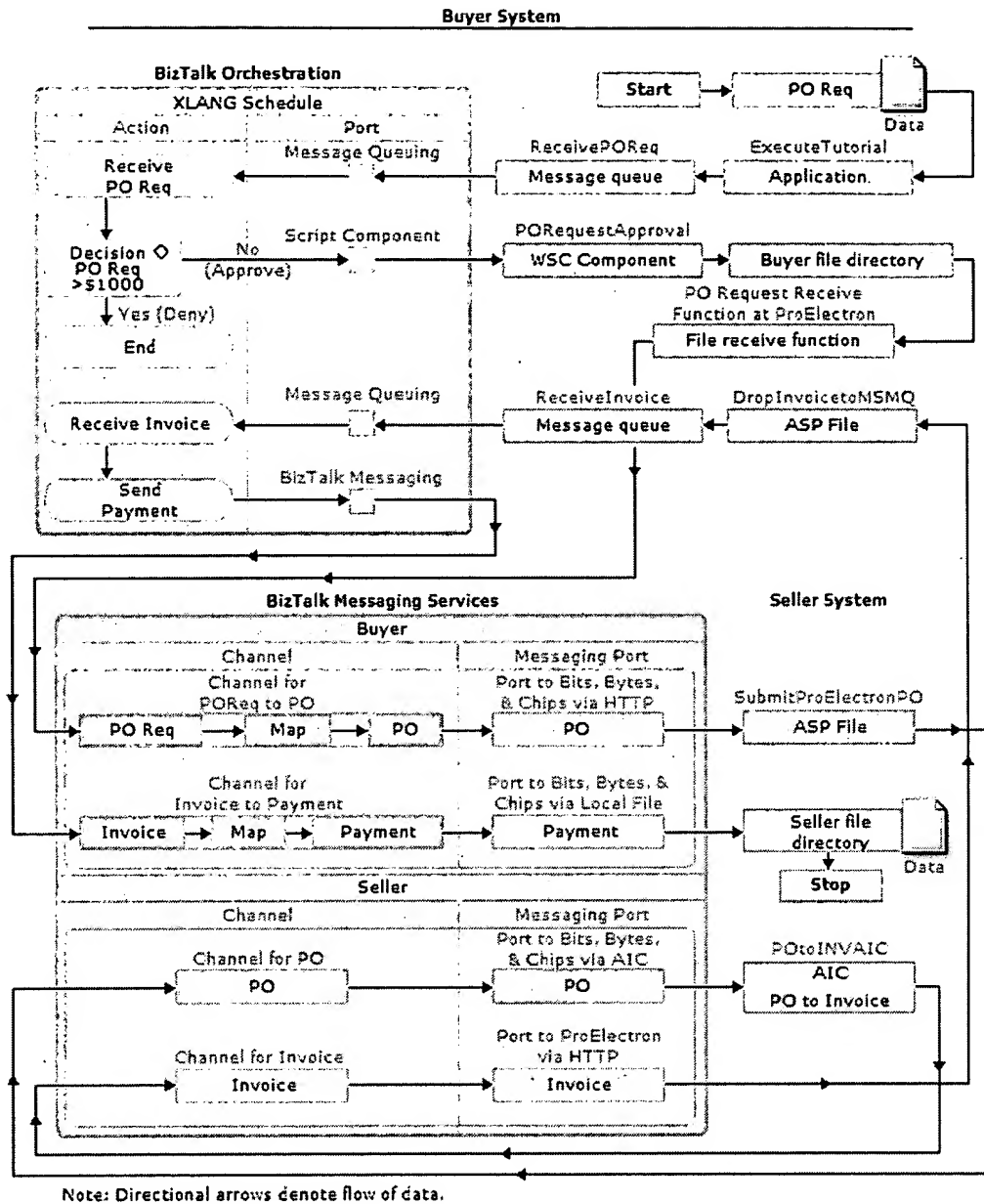


Figure 5: Process/System Diagram (reference A: Figure 26, Page 26)

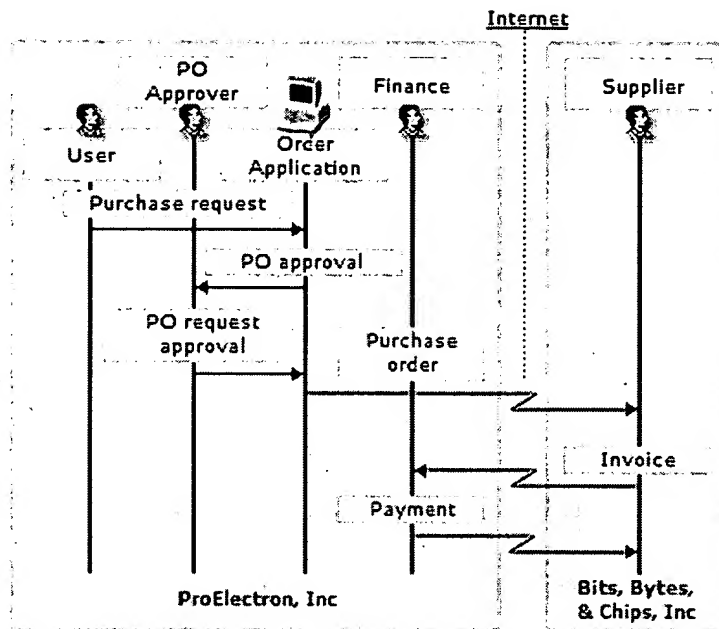


Figure 6: Process Diagram (reference A: Figure 25, Page 25)

While BTS teaches that the workflow system intended to be used to manage any of a plurality of business processes (workflows) including but not limited to processes associated with the manufacture of a product (reference A: Pages 1, 2A, 2-4; Tutorial, Pages 25-27; Module 1, Pages 28-38; Figure 33, Page 33 and as shown above in Figure 3; Figures 25 and 26, Pages 25-26 and as shown above in Figures 5-6); BTS does not express that the plurality of tasks being managed as part of the workflow are manufacturing tasks or that the type of errors/faults handled by the workflow system however these differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the intended field of use for the workflow system or the specific type of error for which the

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fault-tolerant transactional system has been developed to overcome. Further, the structural elements remain the same regardless of the intended field of use or specific error type. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); *MPEP* 2106.

Regarding Claims 2, 35 and 42 BTS teaches that the workflow management system processes at least one short running server request among the plurality of tasks to be executed automatically, wherein at least one of the short running service requests is executed as a synchronous service (reference A: Pages 6, 8, 9-10, 14-15; Figure 14, Page 14 and as shown in Figure 7 below).

Regarding Claims 3, 36 and 43 BTS teaches that the workflow management system processes at least one long running service request among a plurality of tasks to be executed automatically, wherein at least one of the long running service requests is executed as an asynchronous service (reference A: Pages 1-2, 6, 7, 9-10, 14-15; Figure 14, Page 14 and as shown in Figure 7 below).

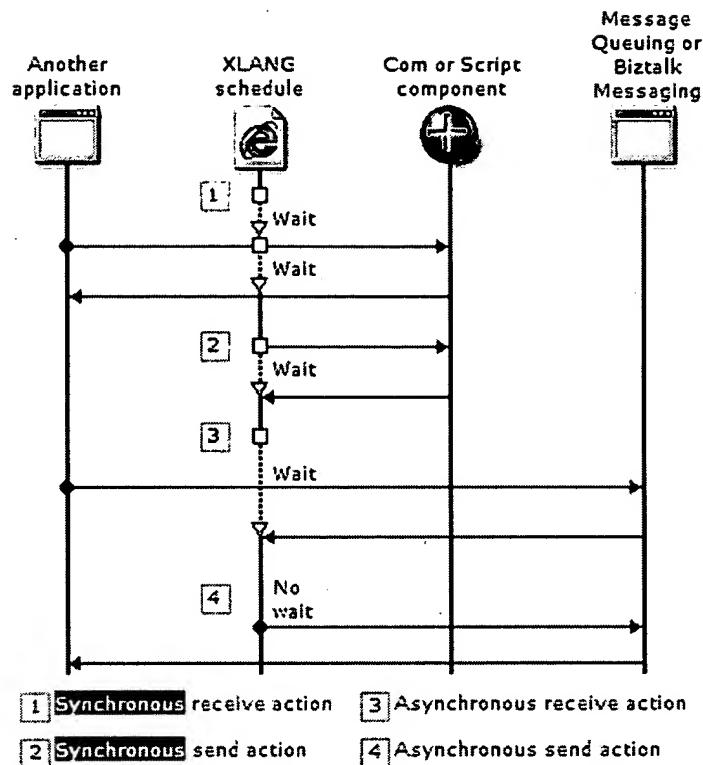


Figure 7: Synchronous and Asynchronous Communications (reference A: Figure 14, Page 14)

Regarding Claims 4, 37 and 44 BTS teaches that the workflow system enables the user to set a predetermined number of time to retry (attempts, retry count) a failed process (transaction, activities) as discussed above.

BTS does not expressly teach the specific number or range of predetermined retries as claimed however, these differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the number of times the workflow attempts to retry a failed service

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request/process (specific data). Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP § 2106.

Regarding Claims 5-6, 38-39 and 45-46 BTS teaches that the workflow management system provides a plurality of means for insuring the fault tolerance of the tasks (activities, events, messages, etc.) associated with the automated business process including but not limited to a plurality of task properties: Timeout, Backoff Time, Timed Transactions, Retry Count, On Failure page, transactional abort process, and Compensation for Transactions page (reference A: Pages 6, 9-13 and 17).

More specifically BTS teaches that the Backoff Time is a property that determines the interval between each attempt to retry a transaction and that the backoff time is used with the retry count value to determine how long to wait before the next transaction retry (reference A: Page 9). Further BTS teaches that the Backoff Time is exponential and therefore the intervals between successive retries vary.

Regarding Claims 7, 8, 18 and 30 BTS teaches that the workflow management system utilizes a plurality of standard software interfaces and at least one of the interfaces complies with the Component Object Model (COM; reference B:, Figure 1, Page 1 and as shown in Figure 2 above; reference A: Pages 5 and 19-22).

Regarding Claims 9, 40 and 47 BTS teaches that the workflow management system manages and executes transactions (commit a predetermined number of tasks to be executed as a group; reference A: Pages 6-11).

Regarding Claims 10 and 22 BTS teaches that the workflow management system comprises (reference A: Pages 1-5; reference B: Pages 1-2; Figure 1, Page 1 and as shown above in Figure 2):

- a plurality of service providers that interface with a plurality of software objects, systems, applications and the like;
- a plurality of task processors (scripts, components, subsystems, applications, etc.); and
- a plurality of process controllers coupled to the task processors (Orchestration Engine; Microsoft Windows NT, MTS, IIS) and make a request to retry to execute one of the plurality of tasks upon failure of one of the tasks to be executed by anyone of the plurality of task processors.

Regarding Claims 11, 12, 23 and 24 BTS teaches that the workflow management system locks another one of the plurality of tasks (events, activities, subsystems, processes) before one of the plurality of tasks is to be executed. BTS further teaches that the task processor ensures another one of the plurality of tasks is not currently

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being executed with the task processor attempts to lock another one of the plurality of tasks (reference A: repeatable read, lock, Pages 6-7, 9-10).

Regarding Claim 13-16 and 25-28 BTS teaches that the workflow management system further comprises a task initiator (orchestration engine) that makes a request to the task processor (any process component, application, system, script or the like) to execute another one of the plurality of tasks, wherein the task processors executes the task as requested (reference A: Pages 1, 2A, 5; Tutorial Module 1, Pages 28-38; Figure 33, Page 33 and as shown above in Figure 3; Figures 25 and 26, Pages 25-26 and as shown above in Figures 5 and 6).

BTS further teaches that the task initiator retries the request to the task processor if the request fails to be executed as discussed above.

Regarding Claims 19 and 31 BTS server teaches that the workflow management system provides a plurality of means for identifying and retrieving information (actions, events, activities, data) provided for a plurality of services.

BTS does not expressly teach that short running service do not have a return address.

Official notice is taken that the utilization (retrieved, acted upon, captured, used, etc.) of a callee's return address or other returned information by the caller (procedure

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calls, object invocation, etc) is optional (arbitrary) is old and well known as evidenced by at least the references discussed above.

It would have been obvious to one skilled in the art at the time of the invention that the workflow system as taught by BTS would have utilized a plurality of well known systems (software, application) development methods (techniques, approaches, tools, etc.) including but not limited to enabling users to configure their processes (systems, applications, objects, etc.) to not capture or utilize the return address or other returned information associated with any process including but not limited to short running processes.

Regarding Claims 20 and 32 BTS teaches that the workflow management system supports long running services (transactions) and that the long running transactions have a return address in its API (standard interface) to thereby allow return information from the long running service to be received by the return address (reference A: messaging, transport type, source and destination, etc., Pages 50-60).

Regarding Claims 21 and 33 BTS does not expressly teach the resource management algorithms utilized as part of the workflow system or those resource management algorithms supported by the operating system or hardware system upon which the workflow system is executed.

Official notice is taken that it is old and very well known in the art that freeing resources associated with a process (application, system, user, object) after that process is no longer using or expected to use the resource is a common method for optimizing the performance of systems and limiting resource conflicts as evidenced by at least the references discussed above.

It would have been obvious to one skilled in the art at the time of the invention that the workflow system as taught by BTS would have utilized any one of a plurality of resource allocation algorithms (programs, applications, etc.) to increase the systems overall performance and reduce resource conflicts.

Regarding Claims 34 and 41 BTS teaches a workflow management system and method comprising:

- receiving a workflow script (XLANG schedule) that includes a plurality of tasks to for any dynamic business process including the processes associated with the manufacture of a product (reference A: Pages 1, 2A, 2-4; Tutorial, Pages 25-27; Module 1, Pages 28-38; Figure 33, Page 33 and as shown above in Figure 3; Figures 25 and 26, Pages 25-26 and as shown above in Figures 5-6); and
- retrying, for a predetermined number of times, to execute one of the plurality of tasks when the one of the plurality of tasks failed to execute as discussed above.

Regarding Claim 48, Claim 48 recites similar limitations to Claims 1-3 and is therefore rejected using the same art and rationale as applied in the rejection of Claims 1-3.

Regarding Claim 49, Claim 49 recites similar limitations to Claims 1 and 5 and is therefore rejected using the same art and rationale as applied in the rejection of Claims 1 and 5.

Regarding Claim 50, Claim 50 recites similar limitations to 34-36 and 39 and is therefore rejected using the same art and rationale as applied in the rejection of Claims 34-36 and 39.

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9. Claims 17 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Microsoft's BizTalk Server 2000 (BTS) as evidenced by:

I. Microsoft BizTalk Server 2000- Enterprise Edition Product Documentation (1999-2000), herein after reference A;

II. Anderson, Tim, Head to Head: Talking XML – BizTalk Server 2000 (2001), herein after reference B;

III. BizTalk Server 2000 An Overview (2001), herein after reference C.

as applied to claims 1-16, 18-28 and 30-50 above, and further in view of Rangachari et al., U.S. Patent No. 6,470,227.

Regarding Claims 17 and 29 BTS teaches the application of the workflow management system is applicable to a plurality of business processes as discussed above.

BTS does not expressly teach that one of the processes (tasks, activities) is a service provider to etch lot wafers.

Rangachari et al. teach a workflow system for the automation of the microelectronic manufacturing process wherein a plurality of manufacturing equipment in a fab (semiconductor manufacturing plant) are modeled as objects and managed via a workflow engine (Column 1, Lines 10-20; Column 4, Lines 36-66; Column 5, Lines 49-

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64; Column 9, Lines 12-32; Column 10, Lines 44-68; Column 12, Lines 47-68; Figure 1, Elements 19, 100, 102).

Rangachari et al. does not expressly teach the specific semiconductor manufacturing equipment managed as part of the workflow.

Official notice is taken that to etch a lot of wafers, as part of the manufacturing of semiconductors is old and very well known in the art as evidenced by at least the references discussed above.

It would have been obvious to one skilled in the art at the time of the invention that the microelectronic workflow management system, including the system's ability to manage any of a plurality of semiconductor manufacturing equipment, as taught by Rangachari et al. would have included the ability to manage a machine (service provider) to etch a lot of wafers.

It would have been obvious to one skilled in the art at the time of the invention that the workflow system as taught by BTS, with its ability to be applied to a any business processes, would have been applied to a plurality of manufacturing processes including but not limited to the production of microelectronic products in view of the teachings of Rangachari et al. and in doing so provided for a robust and readily configurable workflow system for the manufacture of semiconductor products.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- Tantry et al., U.S. Patent No. 5,398,336, teach a workflow system for performing a plurality of manufacturing tasks (e.g. semiconductor manufacturing) wherein the system utilizes well known object-oriented and transaction management techniques (methods, systems, etc.).

- Fuchs et al., U.S. Patent No. 5,440,726, teach a method and system for providing fault-tolerant systems wherein the system provides retry mechanisms for automatically detecting and bypassing/recovering from temporal system faults/failures. Fuchs et al. further teach that the fault tolerant system comprises a progressive retry recovery method consisting of a number of retry steps that gradually increase the scope of the rollback when a previous retry step fails.

- Beal et al., U.S. Patent No. 5,568,491, teach a fault tolerant system and method wherein a series of retry attempts are executed in order to successfully complete a requested operation.

- Hogan et al., U.S. Patent No. 5,799,156, teach a fault tolerant system and method wherein the system determines an alternative application (system, device, code, etc.) to receive message (service request) from first application when the number of times to resend (retry) the service request to the second system (application) is exceeded.

- Marchant, U.S. Patent No. 5,864,654, teaches a fault tolerant system for handling "soft" errors.

- Consilium Announces First Components of New Fab300 Automated Factory Control System (July 1998) teaches a system and method for managing workflows in a

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semiconductor-manufacturing environment wherein the system is enabled by Microsoft BackOffice Technologies.

- Applied to buy consilium and enter MES, teaches the acquisition of Consilium (December 1998), a well-known provider/developer of semiconductor workflow management systems by Applied Materials.

- Consilium unveils next generation FAB management solution (July 1999), teaches a semiconductor manufacturing workflow management system wherein the system is powered by Microsoft technologies.

- Consilium.com Web Pages (February 1999 – March 2000) teaches the public availability and commercial use of a semiconductor workflow management system and method (FAB300, WorkStream DFS). The web site further teaches that Consilium is a Microsoft Certified Solution Provider.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SJ
10/5/2005


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